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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,881	10/22/2003	Robert W. Wansbrough	207-0002US	6820
29855	7590	01/11/2006		
WONG, CABELLO, LUTSCH, RUTHERFORD & BRUCCULERI, P.C. 20333 SH 249 SUITE 600 HOUSTON, TX 77070			EXAMINER STADLER, REBECCA M	
			ART UNIT 1754	PAPER NUMBER
DATE MAILED: 01/11/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/690,881	<b>Applicant(s)</b> WANSBROUGH ET AL.	
	<b>Examiner</b> Rebecca M. Stadler	<b>Art Unit</b> 1754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a.) Claim 3 appears to be a step for calculating the oxygen concentration. It appears to merely require calculating the oxygen concentration by using the temperature of the fuel supplied to the reactor et cetera. Perhaps, the claim should read "the oxygen concentration to be supplied." From the specification, it appears that applicants' meant to claim that the parameters determine what oxygen concentration should be supplied at the next stage. However, as stated above, the claim appears to be nothing more than a means to determine the oxygen concentration that is already present, not what should be supplied based on the process parameters.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2 and 4-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith 4,393,034.

As to claim 1, Smith discloses a process for producing carbon black that has a recycle of the flue gas (see abstract). The process comprises the steps of: combusting a hydrocarbon fuel

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(see column 1, lines 51-68); supplying air with a stoichiometrical excess of oxygen (see column 2, lines 65-69 and column 3, lines 44-60) wherein the additional oxygen is supplied in order to maintain the combustion; supplying feedstock oil (see column 5, lines 26-28).

As to claim 2, Smith discloses removing some of the steam content (see column 4, lines 18-22).

As to claim 4, no difference is seen between the flue gas of Smith and the flue gas of the present invention. Therefore, the flue gas of Smith inherently possesses the same calorific value as that claimed.

As to claim 5, Smith discloses filtering the condensable gases in the recycled stream (see column 1, lines 65-69).

As to claims 6 and 7, these are product by process limitations within process claims. The source of the oxygen in this process is not a patentable feature because oxygen is oxygen regardless of how it was obtained.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith '034.

As to claim 1, insofar as the Smith reference does not teach the same exact additional oxygen to achieve the same combustion gas temperature, et cetera, it would have been obvious to adjust the oxygen to provide whatever temperature and concentration is desired. See, e.g., In re Boesch, 617 F.2d 272, 205 U.S.P.Q. 215 (CCPA 1980).

As to claim 3, it would have been obvious to control the parameters by adjusting the oxygen concentration supplied in order to optimize the process. Maintaining a constant temperature is desirable in most processes. See, In re Boesch, supra. Insofar as the claim is merely a calculation of the oxygen concentration, using process parameters to determine the oxygen concentration present is obvious because it controls the process to optimize efficiency.

Claims 1, 3, and 8-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith '034 in view of Rogers 4,737,531.

Insofar as Smith does not teach adjusting the oxygen concentration in order to control the process parameters including combustion temperatures, Rogers does disclose a control loop to change the oxygen concentration if the effluent is below a certain temperature (see column 2, lines 8-17). It would have been obvious to one of ordinary skill in the art to add the control loop of Rogers to the carbon black process of Smith in order to ensure that the combustion temperature remains high enough for combustion.

As to claims 8-15, the carbon black recycle steps of the process are rejected as above over the Smith reference. As to the calculating and adjusting steps, it would have been obvious to calculate process parameters and then to adjust them to obtain a certain combustion gas temperature (as demonstrated in Rogers '531). It is obvious to maintain a relatively constant temperature throughout the process in order to provide a more stable process. As to the limitations regarding where the sample is taken, it would have been obvious to sample the stream wherever you want to sample it in order to adjust the corresponding parameter. No criticality is seen in these limitations. Further, no unexpected results are seen. Finally, the selected datum point is an obvious expedient. See, In re Boesch, supra.

As to claims 16 and 17, Smith '034 discloses a hydrocarbon and natural gas for the fuel (see column 1, lines 55-59).

As to claim 18, Smith '034 discloses fuel oil, which is a liquid at room temperature and pressure (see column 1, lines 55-59).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rebecca M. Stadler whose telephone number is 571-272-5956. The examiner can normally be reached on Normal.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

rms



STUART L. HENDRICKSON  
PRIMARY EXAMINER